

REMARKS

Claims 1, 5, 7, 8, 10-13, 16, 18, 19, 24, 25, 27, 28 and 30-52 are currently pending in the subject application and are presently under consideration. Claims 1, 11, 19, 30, 33 and 36 have been amended as shown on pages 2-9 of the Reply. New claim 53 is added. Support for this claim can be found in the specification as filed at page 49 lines 5-8 and page 54 lines 10-12. Applicants' representative thanks the Examiner for the teleconference of January 29, 2009 wherein merits of the claims vis-à-vis the cited art were discussed.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 19, 24, 25, 30-33 and 45-52 Under 35 U.S.C. §102(b)

Claims 19, 24, 25, 30-33 and 45-52 stand rejected under 35 U.S.C. §102(b) as being anticipated by Kanevsky, *et al.* (US 6,421,453). Withdrawal of the rejection is requested for the following reasons. Kanevsky *et al.* fails to disclose or suggest all aspects set forth in the subject claims.

A single prior art reference anticipates a patent claim only if it **expressly or inherently describes each and every limitation set forth in the patent claim**. *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); See *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The **identical invention must be shown in as complete detail as is contained in the ... claim**. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (emphasis added).

The claimed subject matter relates to a system for controlling a computer using gestures. A 3-D imaging component performs gesture recognition and interpretation based on a previous mapping of a plurality of hand poses and orientations to a plurality of user commands for a given user. Gestures captured from a user are stored and each of the gestures is associated to a particular user selected command that manipulates on-screen objects that control a computer or a device connected to the computer. The system subsequently captures a gesture of the user, compares it to the previously stored gestures and executes the mapped user commands to control the computer. Further, the system allows different users to select different commands to associate with a received gesture. In particular, amended independent claim 19 recites *a method*

of controlling a computer system using a gesture, comprising: **permitting different users to select different gestures for execution of a user command selected from a plurality of commands on the computer system**; identifying a user; capturing one aspect of a gesture in the form of a 3-D gesture image; processing the 3-D gesture image and utilizing a user profile to **determine an associated user command preselected by the user to associate with the received gesture**; and **executing the user command to effect manipulation of an object of the computer system based on the selection obtained from the user profile**, wherein the object is a device connected to the computer or an application running on the computer. Independent claim 33 recites **different users are allowed to select different commands to associate with the received gesture, the different commands are executable by the computer system**. Kanevsky *et al.* is silent regarding such novel features.

Kanevsky *et al.* relates to a method and apparatus for user recognition to grant access to authorized users to one of a computer, a service and a facility. At the cited portions, Kanevsky *et al.* discloses processing the same command from multiple users, wherein the command has a different meaning to each of the users. Further, Kanevsky *et al.* discloses filming the gestures of an individual, matching it against a users pin database and verifying a user based on the captured gesture matching the stored gesture. The result of this verification is applied to a grant/deny entry system that operates the door. Moreover, Kanevsky *et al.* discloses utilizing the verification process to verify an individual prior to providing him with a paycheck. Nowhere does Kanevsky *et al.* disclose **permitting different users to select different gestures for execution of a user command selected from a plurality of commands on the computer system**; identifying a user; capturing one aspect of a gesture in the form of a 3-D gesture image; processing the 3-D gesture image and utilizing a user profile to **determine an associated user command preselected by the user to associate with the received gesture**; and **executing the user command to effect manipulation of an object of the computer system based on the selection obtained from the user profile**. Rather, the system associates a gesture pin from a user with a user command of opening the door, and further associates gesture pins from different users with a single user command of opening the door. Thus, Kanevsky *et al.* does not permit different users to select different gestures for execution of a user command selected from a plurality of commands on the computer system, as any user-selected gesture can be associated only with a single user command on a computer system, that of verifying an individual prior to opening a

door or providing a paycheck. In contrast, the claimed invention allows for permitting *different users to select different gestures for execution of a user command selected from a plurality of commands* on the computer system. Thus, Kanevsky *et al.* is silent regarding ***the imaging component permits user selection of association of gestures with user commands*** as recited by independent claim 19.

Independent claim 30 recites *a method of controlling a computer system in an operating room environment, comprising: **calibrating the computer system according to a user profile of individualized gesture data by presenting associated gestures using at least one or more body motions; mapping the gesture data to at least one user command selected from a plurality of user commands that is executable by the computer system; invoking the user profile according to a unique signal that identifies a user; presenting the gestures to a 3-D imaging system for capture and processing; interpreting 3-D renderings of the gestures to retrieve the associated user commands; and executing the user commands to effect manipulation of an object of the computer system.*** At the cited portions, Kanevsky *et al.* discloses gestures of different users captured in an enrolment session, and stored in a database. Each of the gestures can comprise indicia segmented into various categories utilized to verify an individual. At a subsequent session the gesture is captured and the captured indicia are compared with the stored indicia for verification, wherein on verification the user is allowed access to a computer/facility/service. In contrast, the claimed invention provides for *mapping the gesture data to at least one user command selected from a plurality of user commands* that is executable by the computer system and interpreting 3-D renderings of captured gestures to retrieve the associated user commands. Thus, Kanevsky *et al.* does not disclose aforementioned features recited by independent claim 30.

Dependent claim 48 recites ***the 3-D imaging component further comprising processing subsequent gesture images to interpret the gesture for manipulation of the object.*** At the cited portions, Kanevsky *et al.* discloses multiple users giving a command to the computer, the user recognition system recognizes the users and their rankings and the command given by the higher ranking user being executed. Thus, Kanevsky *et al.* discloses the user recognition feature of the system. Nowhere does Kanevsky *et al.* disclose ***the 3-D imaging component further comprising processing subsequent gesture images to interpret the gesture for manipulation of the object.*** In contrast, the claimed invention provides a wireless device selecting an object for manipulation,

the imaging component to process subsequent gesture images from the user, interpret the gestures and accordingly manipulate the object. Thus, it is concluded that Kanevsky *et al.* merely discloses using various gestures for executing a single task of user recognition and is silent regarding aforementioned features recited by claim 48.

By providing for a user to select a particular command to associate with a captured gesture, the system allows different users, who may prefer to make different motions for a selected command, the ability to tailor the system in a way most efficient for their personal use (See applicants' specification as filed page 27 line 26- page 28 line 7). Additionally, the system facilitates updating the user profile with a new command gesture when the gesture changes within specific criteria as recited in new dependent claim 53. None of the cited documents teach nor suggest such claimed aspects.

Accordingly, it is requested that this rejection with respect to independent claims 19, 30 and 33(and the claims that depend from) should be withdrawn.

II. Rejection of Claims 1, 5, 10-13, 27, 28, 34, 39-44 Under 35 U.S.C. §103(a)

Claims 1, 5, 10-13, 27, 28, 34, 39-44 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kanevsky in view of Oohara, *et al.* (US 5,801,704). Withdrawal of this rejection is requested for the following reasons. Kanevsky *et al.* and Oohara *et al.*, alone or in combination, fail to disclose or suggest all aspects set forth in the subject claims.

The claimed subject matter relates to a system for controlling a computer using gestures. In particular, independent claim 1 recites *a 3-D imaging component that captures the gesture in the form of a gesture image, processes the gesture image, and interprets the gesture image to execute the user command for control of the computer system and the imaging component permits different users to select different commands from a plurality of user commands executable by the computer system, to associate with the received gesture such that the received gesture executes a user command based on user profile.* Kanevsky *et al.* and Oohara *et al.*, alone or in combination, fail to disclose or suggest such novel features.

Kanevsky *et al.* relates to a method and apparatus for user recognition to grant access to authorized users to one of a computer, a service and a facility. At the cited portions, Kanevsky *et al.* discloses performing a user verification by filming the gestures of an individual, matching it against a users pin database and verifying if the gesture matches the stored gesture. The result

of this verification is applied to a grant/deny entry system that operates the door. Nowhere does Kanevsky *et al.* disclose *the imaging component permits different users to select different commands from a plurality of user commands executable by the computer system, to associate with the received gesture such that the received gesture executes a user command based on user profile*. Rather, gesture pins of users are captured and compared to stored gesture pins in a user verification system, on a match occurring the user is allowed access to a facility. Kanevsky *et al.* does not disclose *the same computer system* processing both the commands, of verifying an individual to open a door and verifying an individual prior to providing a paycheck. In contrast, the claimed invention provides for a plurality of user commands executable by the computer system, from which a user can select a command to map a particular gesture pin, select another command for a second gesture pin etc. Further, the claimed invention allows different users to map their individual gesture pins to the same selected command. Thus, Kanevsky *et al.* is silent regarding the aforementioned features recited by independent claim 1.

Oohara *et al.* relates to a method of image processing for processing an object by detecting movement of hands and fingers of an operator. At the cited portions, Oohara *et al.* discloses an operator selecting functions by performing the gesture that corresponds to the function, displayed in an instruction action form. However, Oohara *et al.* is silent regarding *the imaging component permits different users to select different commands from a plurality of user commands executable by the computer system, to associate with the received gesture such that the received gesture executes a user command based on user profile* as recited by independent claim 1.

Claims 5, 10, 27, 28, 34, 39-44 depend from independent claims 1, 19 and 33. As discussed supra with respect to independent claim 1, Kanevsky *et al.* and Oohara *et al.*, alone or in combination, fail to disclose or suggest novel features recited by independent claim 1 (and claims 5 and 10 that depend therefrom).

Independent claim 11 recites similar features as independent claim 1, namely *the imaging component permits user selection of association of gestures with user commands selected from a plurality of user commands executable by the computer*. As discussed supra with respect to independent claim 1 and 33, Kanevsky *et al.* fails to disclose all features recited by the subject claims. Oohara *et al.* does not make up for the deficiencies of Kanevsky *et al.* with respect to independent claims 11 and 33.

In view of the above, it is clear that Kanevsky *et al.* and Oohara *et al.*, alone or in combination, fail to disclose or suggest each and every feature recited by the subject claims. Accordingly, it is requested that this rejection with respect to independent claims 1, 11 and 33 (and the claims that depends from) should be withdrawn.

III. Rejection of Claims 35-38 Under 35 U.S.C. §103(a)

Claims 35-38 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kanevsky in view of Hildreth, *et al.* (US 7,227,526). Withdrawal of this rejection is requested for the following reasons. Claim 35 depends from amended independent claim 33. Independent claim 36 recites similar features as claim 33, namely *means for returning a computer command associated with the recognized gesture, wherein different commands are returned associated with different users for the received gesture, the different commands are executable by the computer system.* Claims 37 and 38 depend from claim 36. As discussed *supra* with respect to independent claim 33, Kanevsky *et al.* fails to disclose or suggest *different users to select different commands to associate with the received gesture, the different commands are executable by the computer system.* Hildreth *et al.* relates to an image processing system for processing stereo image data. However, Hildreth *et al.* is silent regarding the aforementioned features recited by the independent claim 36 and fails to make up for the deficiencies of Kanevsky *et al.* Accordingly, it is requested that this rejection with respect to independent claim 36 (and the claims that depends from) should be withdrawn.

IV. Rejection of Claim 7 Under 35 U.S.C. §103(a)

Claim 7 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kanevsky in view of Oohara, *et al.* (US 5,801,704), further in view of Kazama, *et al.* (US 6,111,580). Withdrawal of this rejection is requested for the following reasons. Claim 7 depends from independent claim 1. As discussed *supra*, Kanevsky *et al.* fails to disclose or suggest all features of amended independent claim 1. Kazama *et al.* relates to an input apparatus for detecting a user's action and for outputting operation corresponding to the action, and fails to make up for the aforementioned deficiencies of Kanevsky *et al.* Accordingly, it is requested that this rejection with respect to independent claim 1 (and claim 7 that depends from) should be withdrawn.

V. Rejection of Claim 8 Under 35 U.S.C. §103(a)

Claim 8 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kanevsky in view of Oohara, *et al.* (US 5,801,704), further in view of Dempski, *et al.* (US 7,007,236).

Withdrawal of this rejection is requested for the following reasons. Claim 8 depends from independent claim 1. As discussed *supra*, Kanevsky *et al.* fails to disclose or suggest all features of amended independent claim 1. Dempski *et al.* relates to a method for manipulating virtual objects on a video conference broadcast, and for outputting operation corresponding to the action, and fails to make up for the aforementioned deficiencies of Kanevsky *et al.* Accordingly, it is requested that this rejection with respect to independent claim 1 (and claim 8 that depends from) should be withdrawn.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP397USA].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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